



Ground Combat Command and Control Family of Systems / ABCS SE&I



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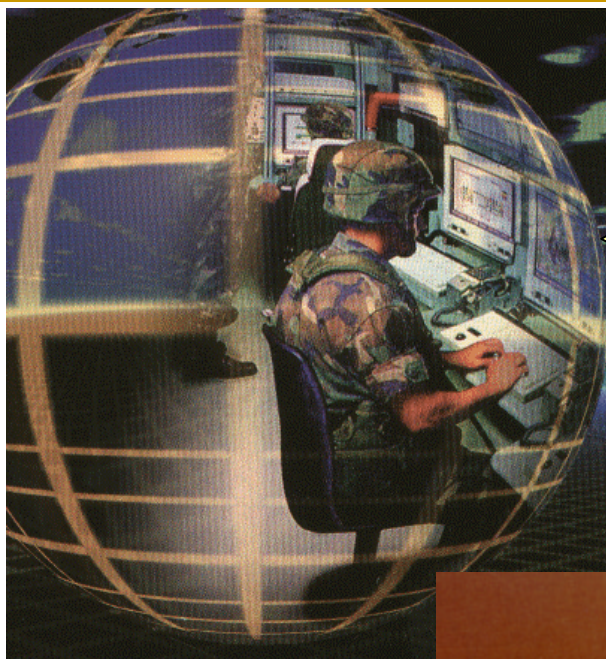
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Report Documentation Page

| | | |
|---|--|--|
| Report Date 06MAY2002 | Report Type N/A | Dates Covered (from... to) 06MAY2002 - 07MAY2002 |
| Title and Subtitle Ground Combat Command and Control Family of Systems/ABCS SE&I | | Contract Number |
| | | Grant Number |
| | | Program Element Number |
| Author(s) Matura, Randall | | Project Number |
| | | Task Number |
| | | Work Unit Number |
| Performing Organization Name(s) and Address(es) PM Ground Combat Command and Control | | Performing Organization Report Number |
| Sponsoring/Monitoring Agency Name(s) and Address(es) Department of the Army HQ U.S. Army Communications-Electronics Command and Fort Monmouth Fort Monmouth, NJ 07703-5000 | | Sponsor/Monitor's Acronym(s) |
| | | Sponsor/Monitor's Report Number(s) |
| Distribution/Availability Statement Approved for public release, distribution unlimited | | |
| Supplementary Notes See also ADM001406, non-print version on CD-ROM. Conference briefings from Advance Planning Briefing for Industry(APBI) held May 6-7, 2002., The original document contains color images. | | |
| Abstract | | |
| Subject Terms | | |
| Report Classification unclassified | Classification of this page unclassified | |
| Classification of Abstract unclassified | Limitation of Abstract UU | |
| Number of Pages 25 | | |



Ground Combat C2 Family of Systems



CSSCS



CS

**Common SW
Infrastructure
Products**

GCCS-A



MCS



Versatile Computer Unit (VCU)



Notebook Computer Unit (NCU)



Ground Combat C2 Family of Systems Objective

- ❑ Path for evolution of Common Software (CS), Combat Service Support Control System (CSSCS), Global Command and Control System - Army (GCCS-A) and Maneuver Control System (MCS) programs beyond ABCS 7.0
 - ➔ Single contract implementation of four separate programs to take advantage of similar/common requirements and evolve the software for releases beyond ABCS 7.0; Includes SW development, SW support, fielding support & training support
 - ➔ Programs themselves will not be combined; CSSCS, GCCS-A and MCS will remain unique fielded systems

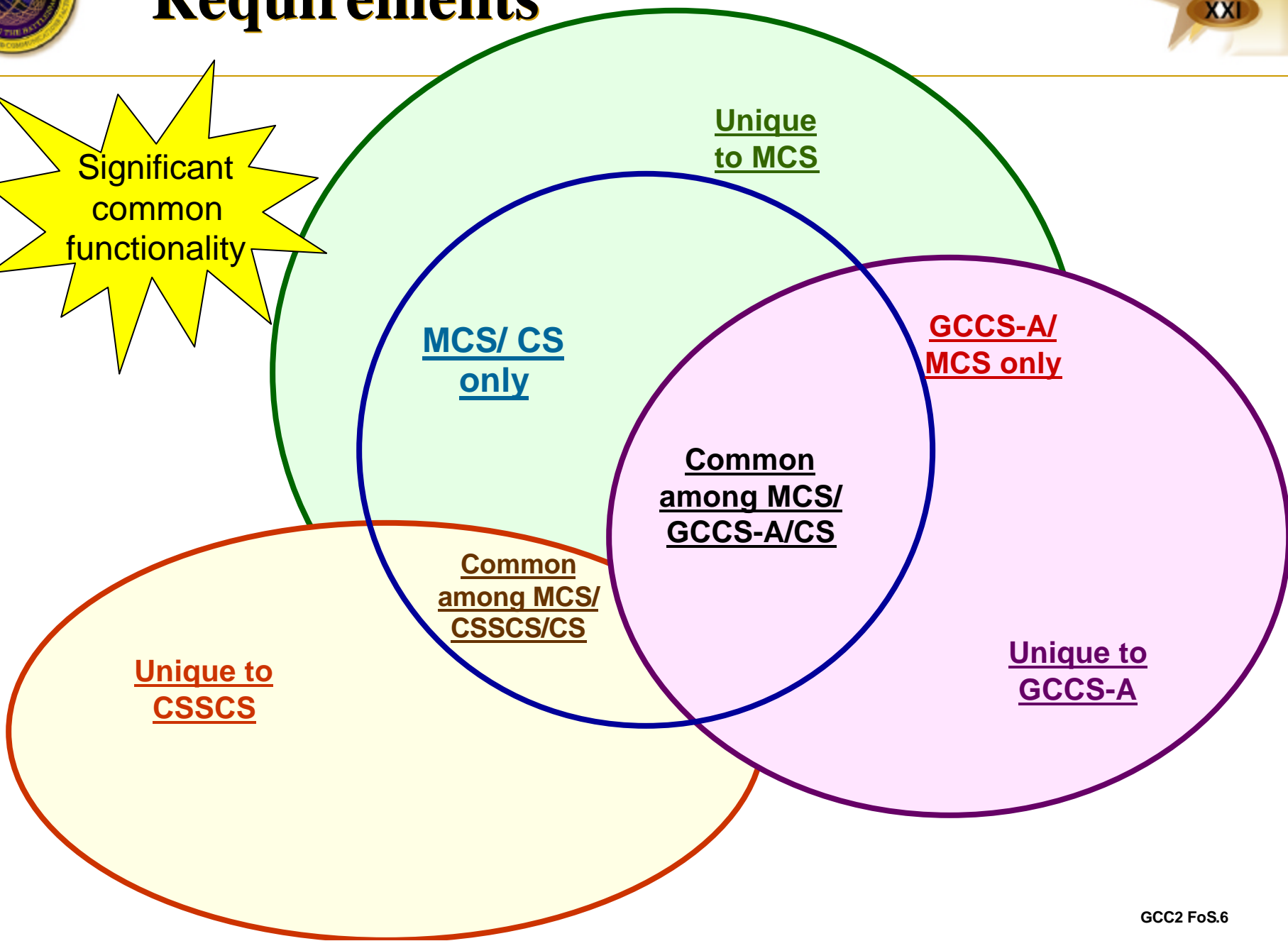
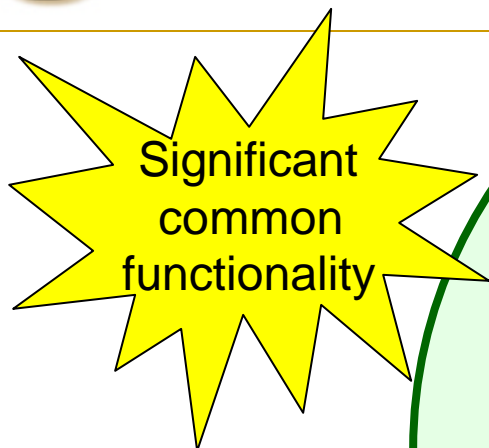


Ground Combat C2 Family of Systems Objective (continued)

- ☐ **Contract will include top level ABCS System of Systems (SoS) architecture design and engineering; software development; software support for existing and new versions; fielding & training support**
 - Does not include hardware development / acquisition**



Requirements





Major (Significant) Work Elements

❑ System of Systems Engineering & Integration (SSE&I)

- ➔ Top level system of systems architecture and design for ABCS
- ➔ Baseline is ABCS 7.0 C4ISR documentation

❑ Common (Exportable) Infrastructure

- ➔ Common infrastructure products exported to BASs and integrated with BAS unique applications to become the BAS system

❑ Common GC C2 Applications

- ➔ Applications that are common to CSSCS, GCCS-A and MCS



Major (Significant) Work Elements (continued)

□ Unique GC C2 Applications

→ SW which is integrated with the common infrastructure and common applications to provide the systems:

- CSSCS
- GCCS-A
- MCS

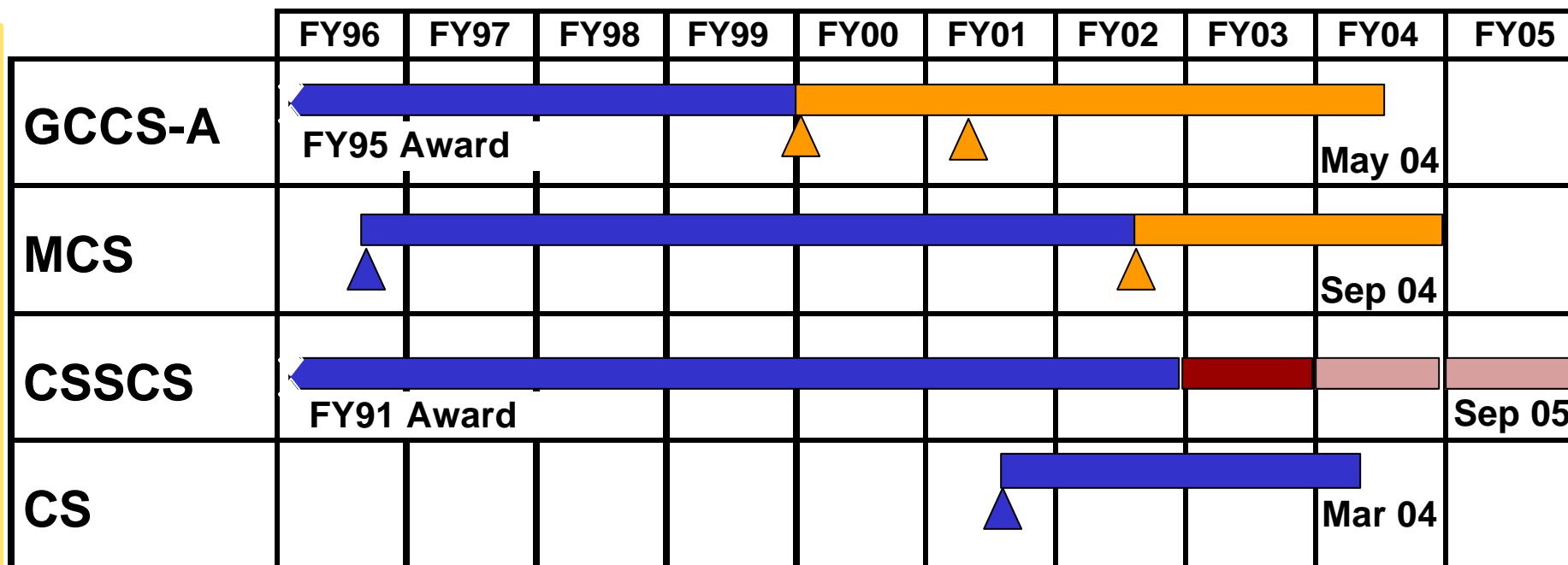
□ Support of Legacy (ABCS 7.0) Systems

- SW maintenance
- Fielding support
- Training



Ground Combat C2 Family of Systems

Current Contracts



Award



Extension



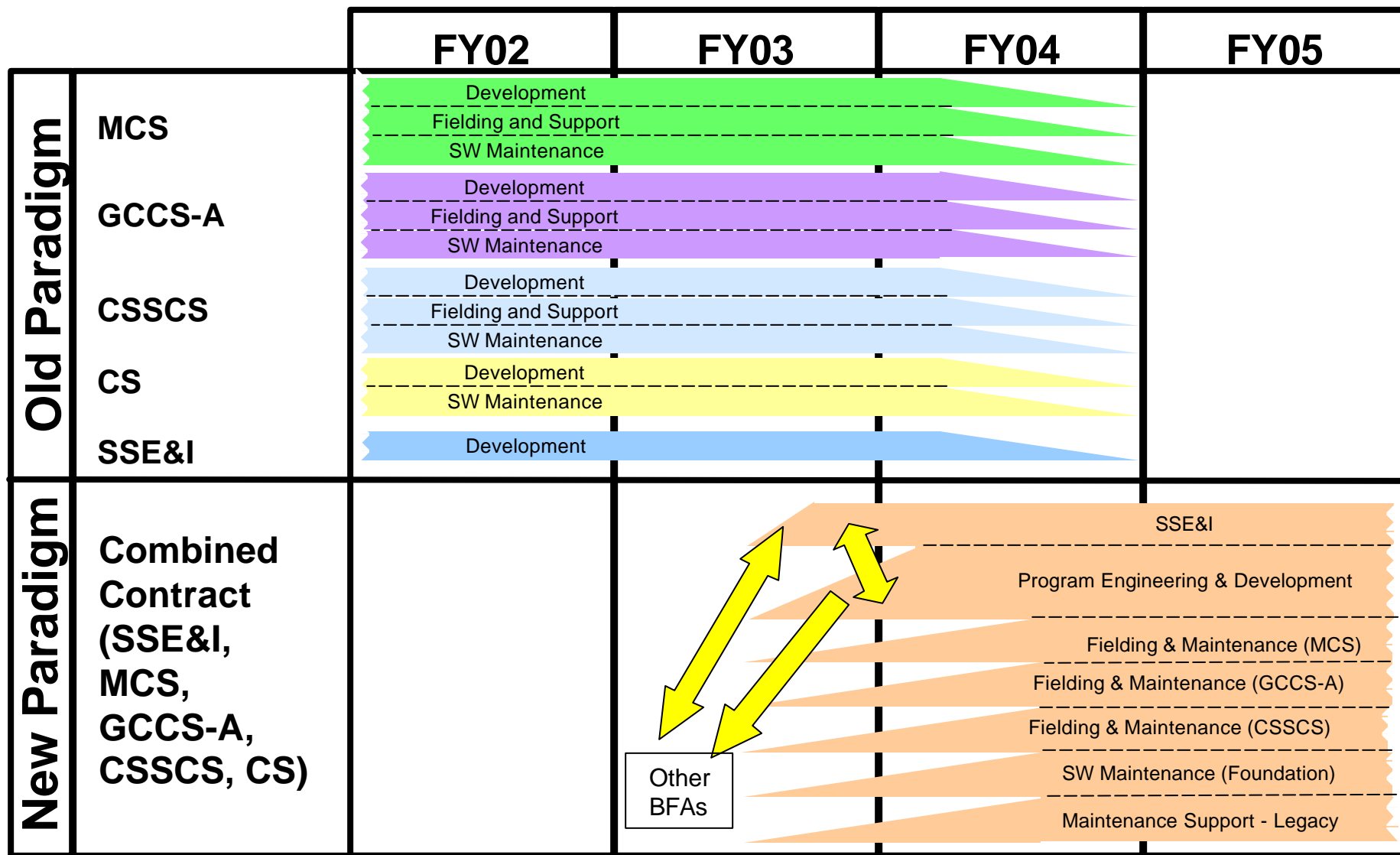
Follow on Contract



Follow on Options (Annual)

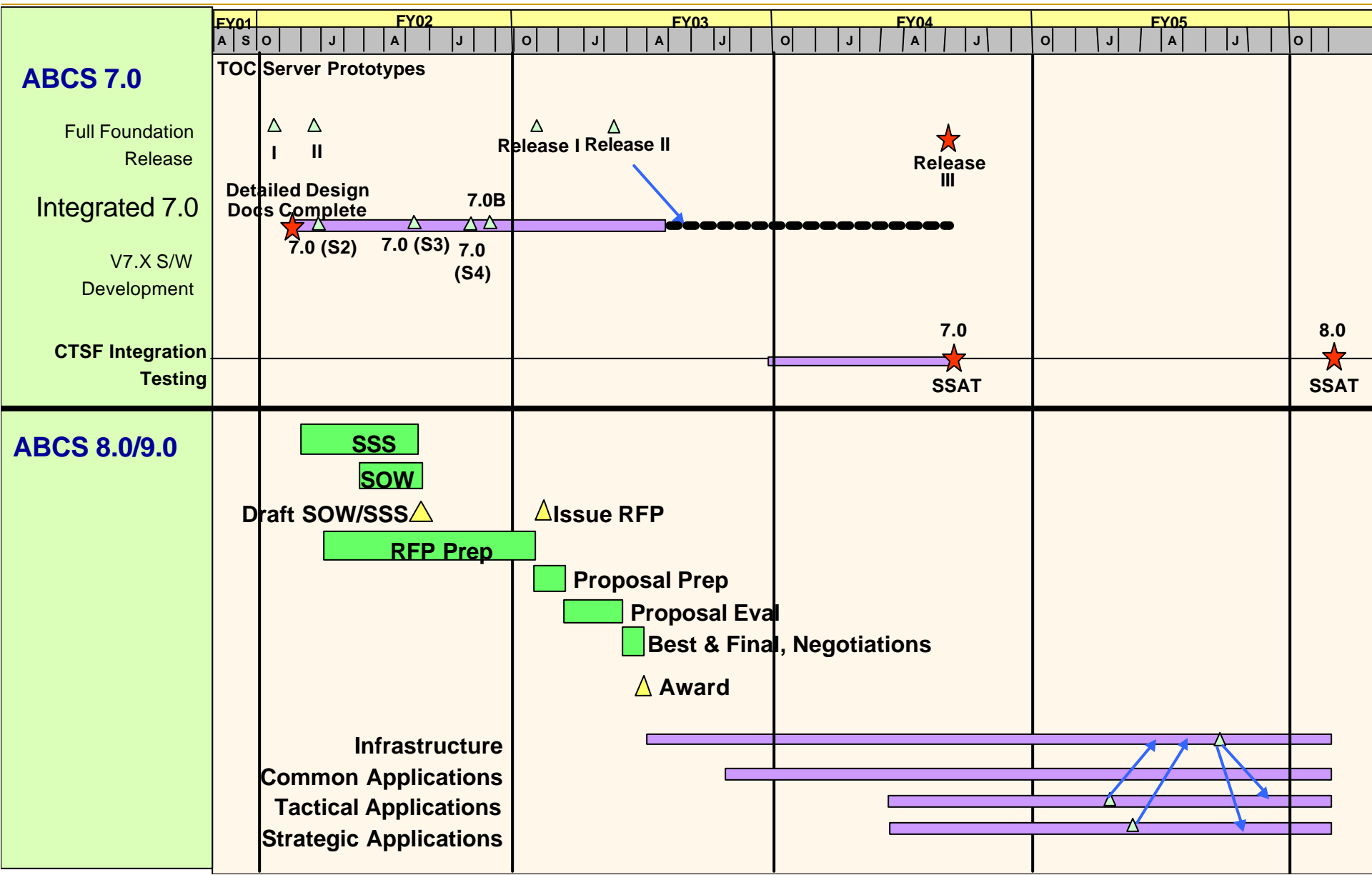


Contractor Responsibilities





Top Level Schedule





Ground Combat Command and Control Family of Systems / ABCS SE&I

- ❑ OBJECTIVE: Single contract implementation of four separate programs to take advantage of similar/common requirements and evolve the software for releases beyond ABCS 7.0; Includes SW development, SW support, fielding support & training support
- ❑ CONTRACT TYPE: TBD
- ❑ ESTIMATED VALUE: \$150M - \$250M
- ❑ KEY MILESTONES (Draft Milestones):
 - ➔ Draft SOW and Spec Released: May 02
 - ➔ Final RFP Released: Nov 02
 - ➔ Award: Apr 03



Ground Combat Command and Control Family of Systems / ABCS SE&I

- ❑ TECHNICAL CONTACT: Linda Johnston, Tech Management Division, PM GCC2, 732-427-6499
- ❑ ACQUISITION CONTACT: Marcia Easton, CECOM Acquisition Center, 732-532-2385
- ❑ SOLICITATION #: DAAB07-02-R-E802



BACKUP



The Army Battle Command System (6.X)

EAC C2

Joint
COP



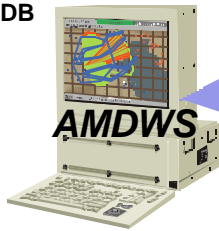
- ATO
- Joint COP
- Air Support Request
- JCDB

Maps



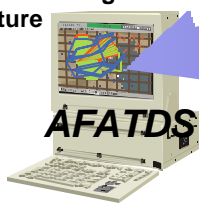
- Local Terrain
- "Go/No-Go" Areas
- JCDB

Air Defense



- Sensor Coverage
- Weapon Coverage
- Air Picture
- JCDB

Fire Support



- USAF TBMCs Interface (JWID)
- Fire Unit Locations
- Range Fans
- Target Locations
- Radar/Observer Locations
- JCDB

Common
Tactical
Picture
(CTP)

Joint Common Database

GCCS-A

MANUEVER

ENGINEER

LOGISTICS

AIR PICTURE

AIR DEFENSE

ENEMY

FIRE SUPPORT

NBC

WEATHER

Air



Weather



Map & Overlay



Maneuver

- OPLAN/OPORD
- Unit Task Organization
- Reports
- JCDB

Logistics



- BRIL / CTIL
- Equipment Status Report
- CSSCS Capability Report
- JCDB

Intelligence



- Secondary Imagery
- Intelligence Summary
- Enemy Locations
- Enemy Geometries
- JCDB

Battle Command

Situation Awareness



- Weather Effects Matrix
- Battle Scale Forecast Model
- JCDB



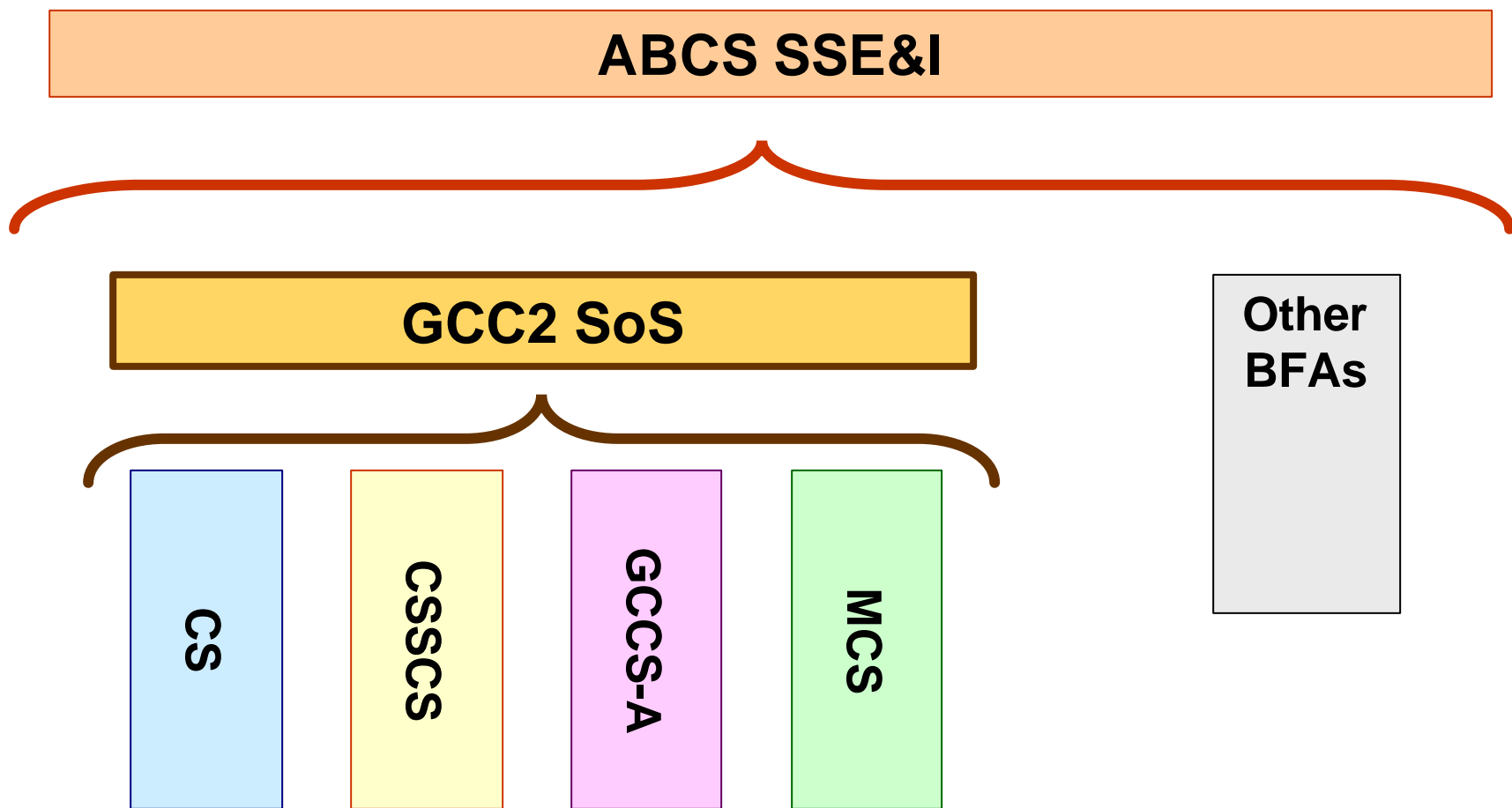
ABCS System of Systems Engineering & Integration (SSE&I)

Mission:

- Develop top level system of systems architecture and design for the ABCS Battlefield Automation Systems (BASs).



System of Systems





Common Software

Mission:

- Develop/acquire/integrate/test/manage, for DoD, several key areas within the Defense Information Infrastructure Common Operating Environment (DII COE) which will provide improved interoperability and software reuse for the services. PM Common Software serves as the Army's DII COE Chief Engineer. Provides technical support to the Army and Joint Systems in migration to DII COE infrastructure.

Characteristics/Description

- Client/Server
- Open Architecture
- Four Layer Software Model
- COTS Based

Capability/Improvements

- Data Access
- Latest Software Technology
- Common Message Parsing
- Communications
- Alerts
- Network Management
- Foundation Products/Integration

Special Features

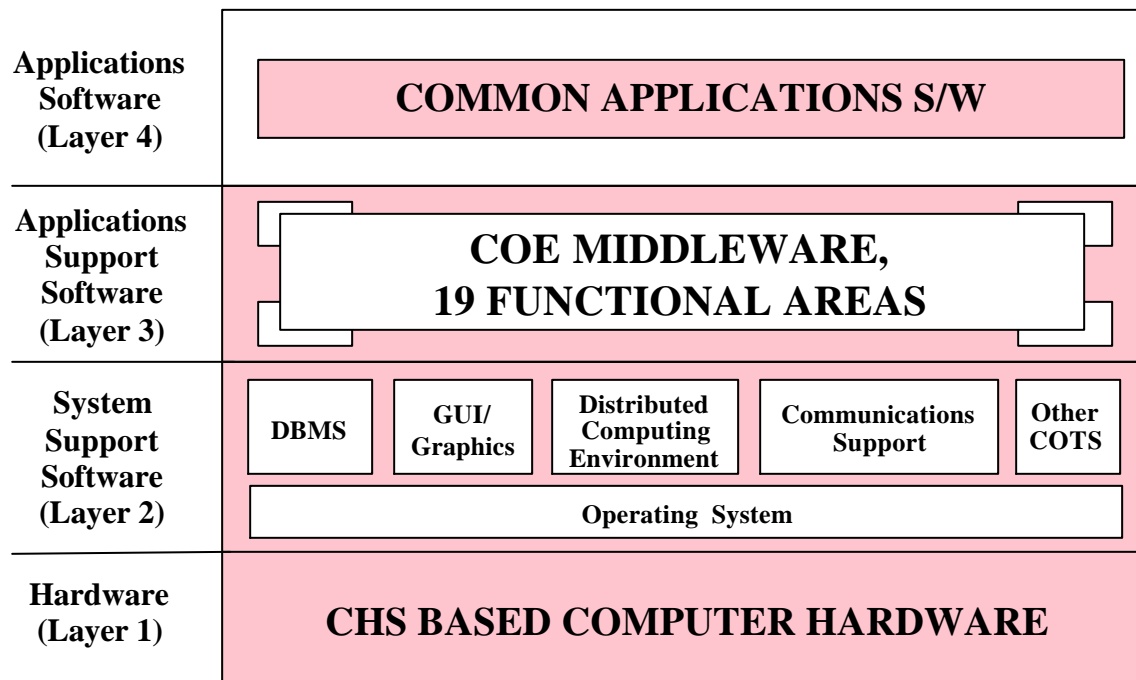
- None



Common Operating Environment

PEO C3T CONCEPTUAL ARCHITECTURE

- The architecture facilitates maintainability, portability, interoperability and reusability
- Common architecture provides the interface to COTS software
 - Promotes product independence
 - Protects the application programs from COTS changes
 - Enhances application portability





Global Command & Control System - Army (GCCS-A)



MISSION:

- Provide critical automated C2 tools for Army Strategic and theater commanders to enhance warfighter capabilities throughout the spectrum of conflict during joint and combined operations in support of the National Command Authority
- Provide interface between Joint and Combined Forces (Joint GCCS) with Tactical Army Battle Command Systems (ABCS)

CHARACTERISTICS/DESCRIPTION:

- Army's strategic and theater C2 system
- Strategic system provides readiness reporting and mobilization and deployment of active, guard, and reserve forces
- Theater system provides Common Operational Picture (COP) and associated information as well as intra-theater planning and movement

SPECIAL FEATURES:

- Consolidation of AWIS, STACCS and TACCIMS C2 Systems, including Common Worldwide Theater Baseline
- Army implementation of Joint GCCS, COE and JTA Compliant
- Nearly all hardware is COTS
- Significant software reuse
- Operates at Secret/High over DISA SIPRNET

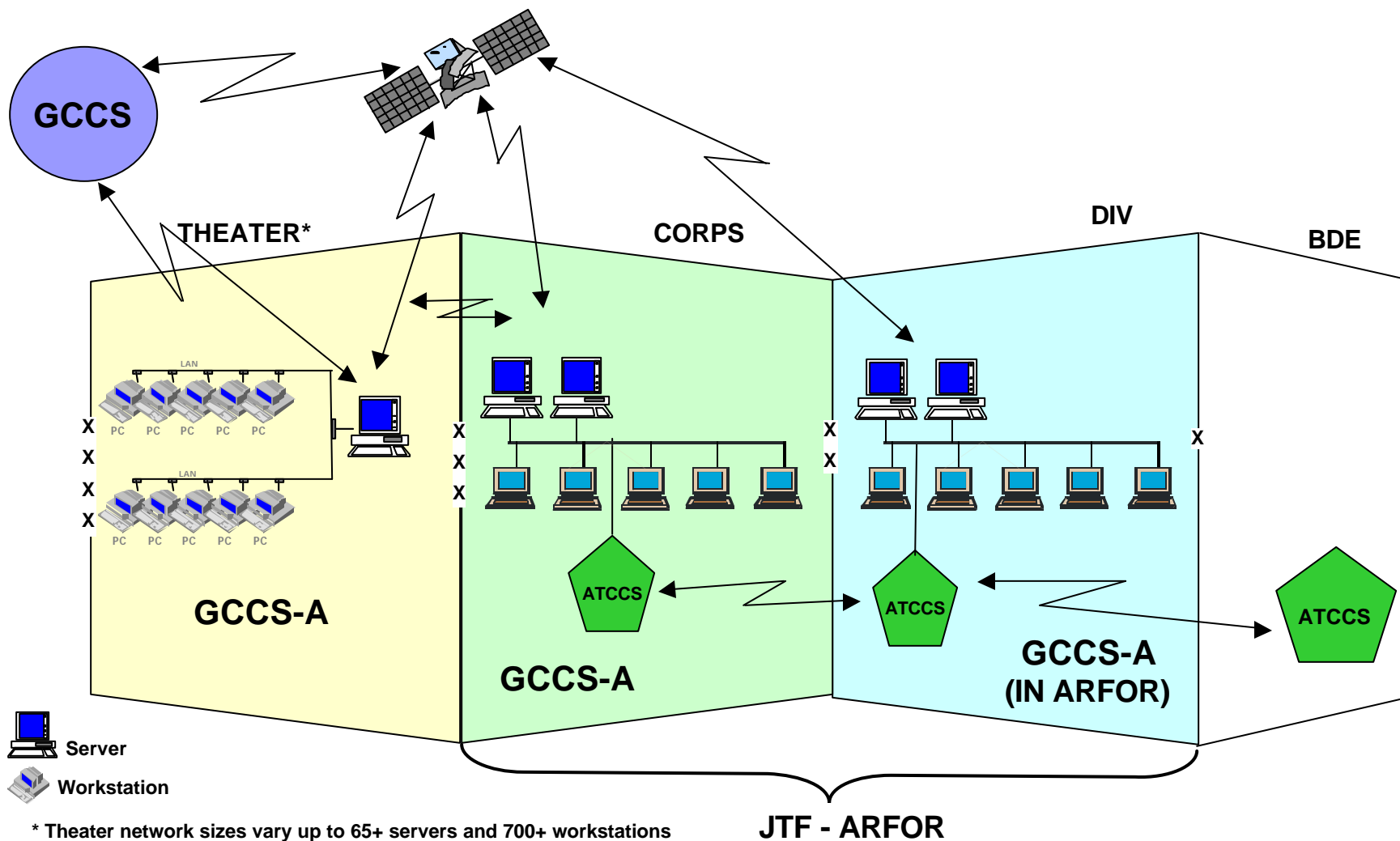
CAPABILITY/IMPROVEMENTS:

- Current applications include friendly and enemy unit status; interoperability with Joint and other Service Systems
- Interoperability with ABCS being developed
- Future applications will include improved Strategic/Theater Logistics, Engineer, Medical, Personnel, NBC, Provost Marshal (among others)
- Will maintain compatibility with COE and JTA updates



GCCS-A Overview

Providing Link between Tactical Battlefield and Strategic & Theater Commanders





Combat Service Support Control System (CSSCS)

Mission:

- Provide the Combat Service Support (CSS) component of the Army Battle Command System (ABCS)
- Provide the Battle Commanders and CSS Commanders and staffs a Logistic Command and Control decision support tool to practice focused logistics and achieve the transformation objective force

Characteristics/Description

- Operates within ABCS architecture
- Collects, stores, analyzes and disseminates critical logistics, medical, transportation and personnel information
- Computer software system designed to assist CDRS and their staffs in planning and executing logistics operations

Capability/Improvements

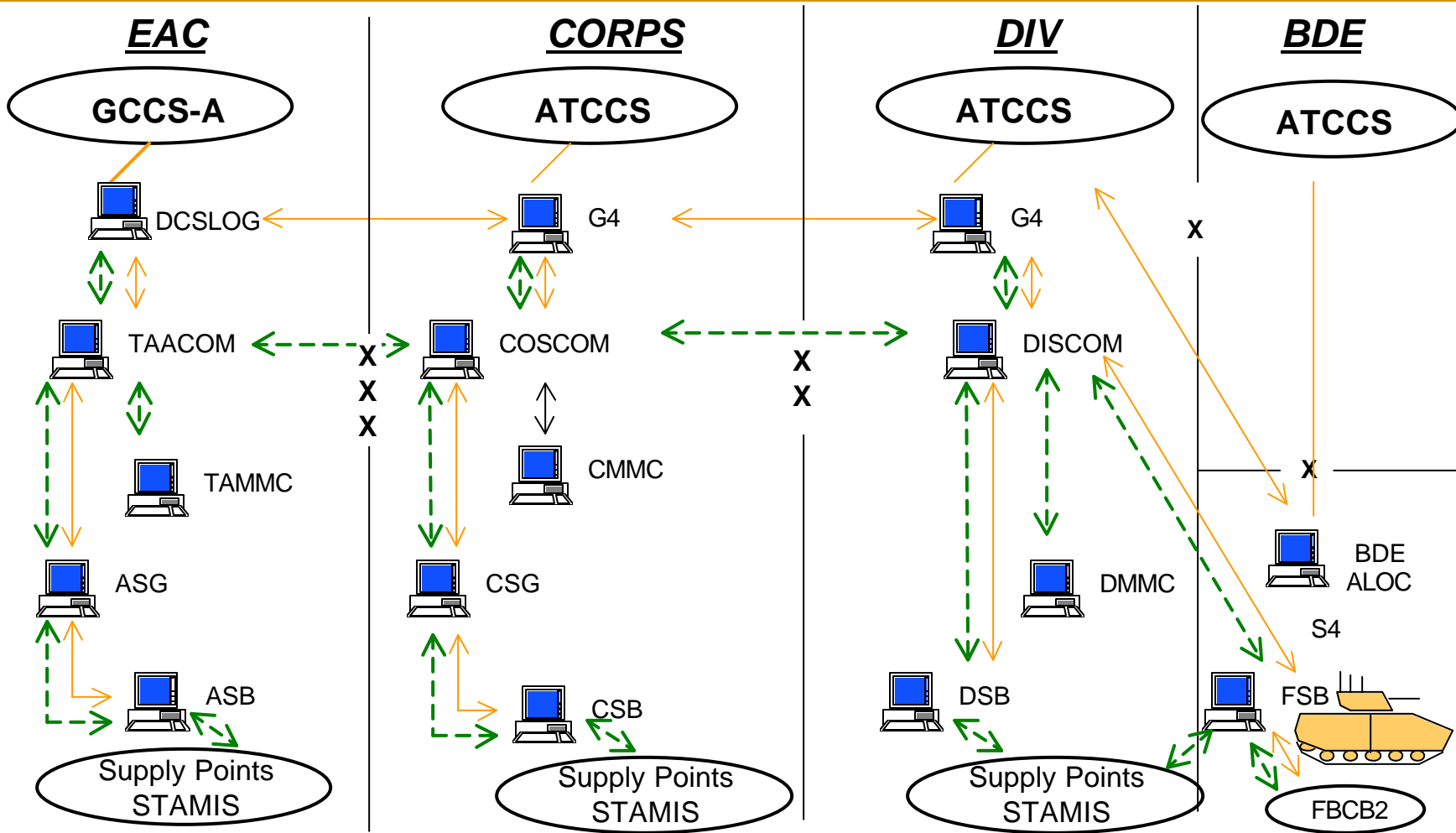
- Version 3 - Initial Operational Capability
- Version 4 - Enhanced CSS and First Digitized Division (FDD) Functionality
 - Initial transportation, medical, and personnel functionality
- Version 5 - Objective tactical functionality; Joint and Combined Operations; First Digitized Corps (FDC) Functionality

Special Features

- Provides CSS C2 for transformation through:
 - Common Hardware/Software
 - Reuse Software
 - System unique capabilities and functionality
 - Housed in a variety of Standard Integrated Command Post System (SICPS) Shelters
 - Technology insertion VIA LOG C2 ATD



CSSCS Overview



Data Flow C2/Unit Status
Log Status

DCSLOG - G4 - G4 - S4
TAACOM - COSCOM - DISCOM
TAMMC - CMMC - DMMC

BDE ALOC ↔
↔



CSSCS Workstation



Maneuver Control System (MCS)

Mission:

- Provide corps through battalion force level commanders and staffs the ability to swiftly collect, coordinate and act on near real time battlefield information and to graphically visualize the digitized battlefield.

Characteristics/Description

- Maneuver Battlefield Functional Area (BFA) in Army Tactical Command and Control System
- Provides Commander with Common Picture of the Battlefield
- Uses Common Hardware/Software-2 Hardware

Capability/Improvements

- Commanders' Computer
- Staff Planning
- OPLAN/OPORD
- Resource Management
- Collaborative Planning

Special Features

- Digitization of Battle Command
- Uses Defense Information Infrastructure Common Operating Environment
- Evolution with Future ABCS Capabilities (e.g., ABCS 7.0, 8.0, etc.)



MCS Overview

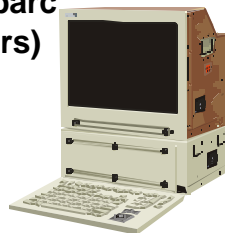
What:

Common Hardware
DII COE Common Software
MCS Application Modules

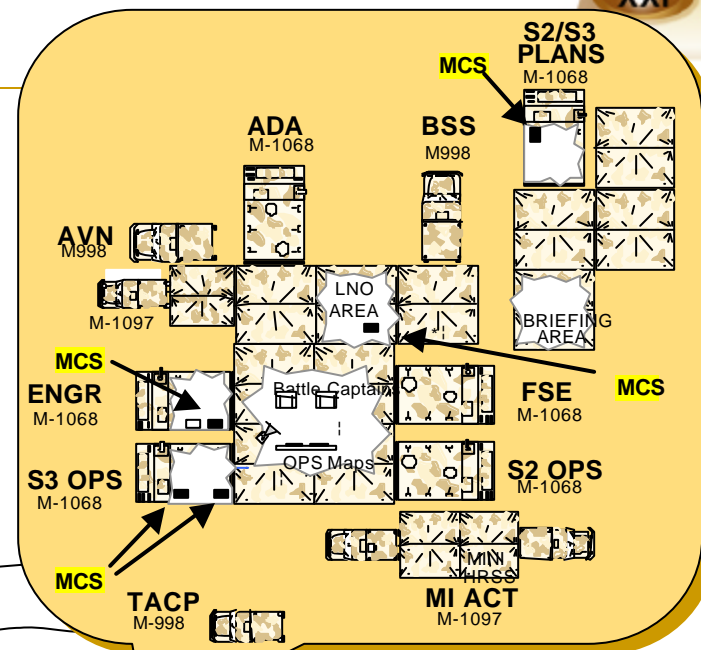
Where:

ALL Armor, Infantry, Aviation, Engineer, Chemical, Military Police, Intelligence, Signal, and Special Force Units from Corps to Battalion.

Ultra/Sparc
(Servers)



Pentium Class
Laptops



CORPS

XXX

DIVISION

XX

BDE

X

BN

XXX

XX

X

H

H

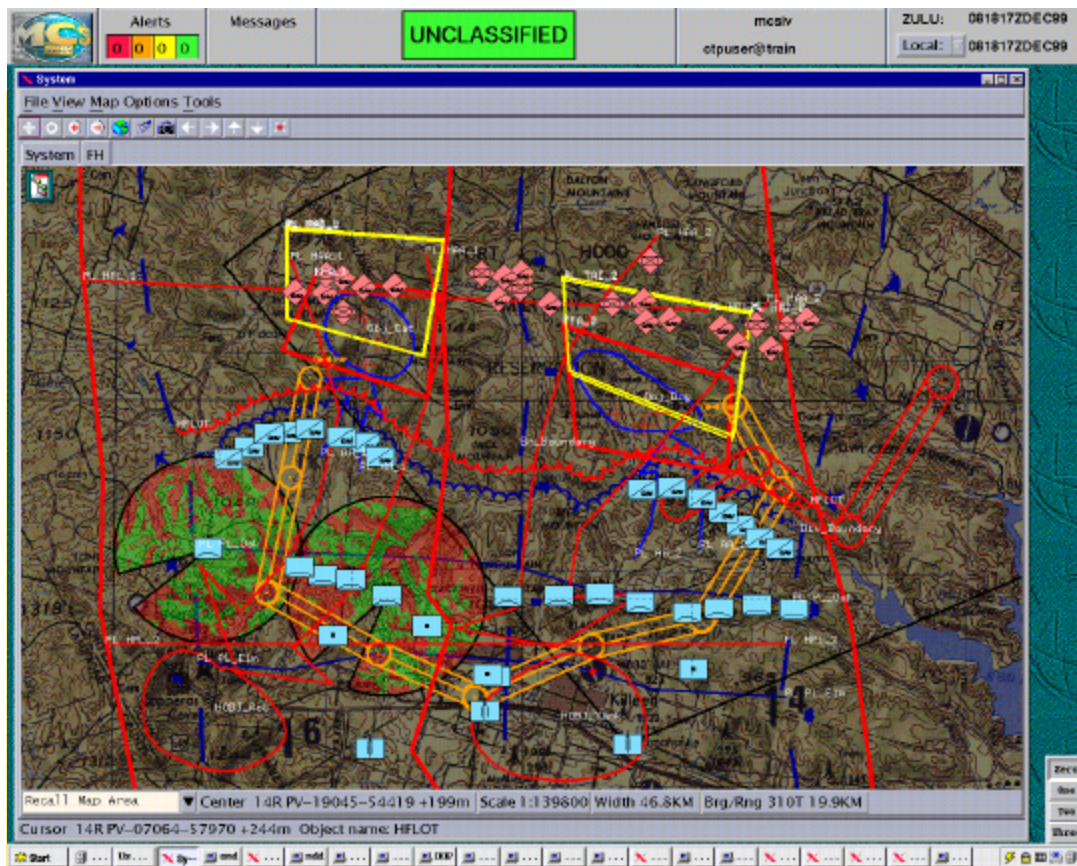
TOC

TOC

| | PER CORPS | PER DIVISION | PER BDE | PER BN |
|---------|-----------|--------------|---------|--------|
| SERVERS | 184 | 86 | 13 | 3 |
| LAPTOPS | 95 | 103 | 12 | 2 |



Common Tactical Picture (CTP)



- ❑ Centerpiece of ABCS
Common Look and Feel
- ❑ Near-Real-Time Situational
Awareness
- ❑ Reflective of Joint
Architecture
- ❑ Common, Interactive
Database
- ❑ Implemented by all BFACs
- ❑ Allows for an Unparalleled
User-Tailored View of the
Battlefield